

METHOD, SYSTEM, AND DATA STRUCTURE FOR TRUSTWORTHY DIGITAL DOCUMENT INTERCHANGE AND PRESERVATION

ABSTRACT

Disclosed is a system, system, and data structure for digital document interchange and preservation whereby document originators, their agents, librarians, and archivists can make documents trustworthy and reliably meaningful to their recipients, no matter how far the recipients are in time, space, and organization from the aforesaid document sources. This invention works for all kinds of documents, independently of their purposes, independently of the kinds of information they convey, and independently of how this information is represented.

The mechanism combines prior standard and conventional data representations, emulation by means of Turing-equivalent virtual computers, a novel semantics of digital object identifiers that are copied into document packages, message authentication codes exploiting public key cryptography, and a certain discipline by which authenticating institutions make their digital signatures trustworthy.

30 claims and 8 figures.